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ABSTRACT

A study was done to determine whether or not the attitudes of parents and teachers were related to the academic achievement of their inner-city Memphis (Tennessee) elementary school students. Seventy-one teachers, 49 parents, and 32 fourth-grade students served as participants. Teachers' responses were used to supplement the development of the "Parent Teacher Attitude Questionnaire" (PTAQ). Parents completed pretests of the PTAQ-Parent Version (PTAQ-P), were exposed to strategies designed to facilitate academic achievement, and were then administered posttests of the PTAQ-P. Students were tested on a pretest-posttest basis in English, mathematics, and reading. Students' scores were compared using dependent "t"-tests. Performance in all academic subjects improved significantly. Parents' responses to the PTAQ-P did not change significantly. The Teacher Performance Factor of the PTAQ-P was significantly related to two academic tests: the English pretest, and the mathematics posttest. The School Requirements Factor was found to be significantly related to the reading pretest. Changes in parents' responses to the test were positively correlated with three of the students' academic gain scores. Appendixes contain the PTAQ-P and the PTAQ factor structure and associated items. Contains 12 references. (JB)

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IMPROVING ACADEMIC ACHIEVEMENT IN INNER-CITY SCHOOLS: DO ATTITUDES OF PARENTS AND TEACHERS MAKE A DIFFERENCE?

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Mid-South Educational Research Association
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ABSTRACT

Attitudes of parents and teachers were investigated to determine whether they are related to inner-city students' academic achievement. Seventy-one teachers, 49 parents, and 32 students served as participants. Teachers' responses were used to supplement the development of the *Parent-Teacher Attitude Questionnaire* (*PTAQ*). Parents completed pretests of the *PTAQ-Parent Version* (*PTAQ-P*), were exposed to strategies designed to facilitate academic achievement, and were then administered posttests of the *PTAQ-P*. Students were tested on a pretest-posttest basis in English, mathematics, and reading. Students' scores were compared using dependent *t*-tests. Performance in all academic subjects improved significantly ($p \leq .05$). Parents' responses to the PTAQ-P did not change significantly. The Teacher Performance Factor of the *PTAQ-P* was significantly ($p \leq .05$) related to two academic tests: the English pretest ($r_{(30)} = .42$), and the mathematics posttest ($r_{(30)} = .38$). The School Requirements Factor was found to be significantly related to the reading pretest ($r_{(16)} = .48, p \leq .05$). Changes in parents' responses to the *PTAQ-P* were positively correlated with three of the students' academic gain scores. Gains in English scores were significantly ($p \leq .05$) related to the Teacher Performance Factor ($r_{(30)} = .43$) and the Parent Performance Factor ($r_{(30)} = .36$). Mathematics gains were significantly associated with the School Requirements Factor ($r_{(30)} = .35, p \leq .05$). Reading gains were not significantly related to any of the four *PTAQ-P* factors.

IMPROVING ACADEMIC ACHIEVEMENT IN INNER-CITY SCHOOLS: DO ATTITUDES OF PARENTS AND TEACHERS MAKE A DIFFERENCE?

Many teachers begin their careers in the inner-city schools with a high energy level, desirous of making their subject matter exciting to their students and demonstrating that they genuinely care for them. However, professional disappointment, accompanied by fear and anxiety, often replaces the joy of teaching the inner-city child because of the difficulties related to improving academic performance (Twillie, 1988). Many school systems are requiring and demanding that each child reach a level of 80% mastery in reading, math, and at least one other academic subject before promotion to another grade.

The literature indicates teachers feel that only with the help of parents can their jobs be performed adequately. Several issues of educational journals have been devoted to and addressed the need for parental, student, and teacher involvement to improve academic achievement. Epstein & Becker (1981, 1982) have done extensive research on parental, student, and teacher involvement and say that there is a great need for such involvement. Other research from the *Phi Delta Kappan* (Mueller, 1987) confirms that students learn more when their parents are involved in their education: the greater the involvement of parents, the larger the students' academic gains. Furthermore, teachers achieve better results when they understand the children they teach, as well as their home environments and the expectations their parents hold for them.

REVIEW OF SELECTED LITERATURE

Parents can no longer be excluded from playing a part in the educational programs of their children. The primary responsibility for educating children lies with the family. Parents today are better educated than ever. To a large extent, this fact reflects well on the education they received in the public schools and on the competent public school teachers and administrators of our nation (Mueller, 1987).

Recent literature and research findings confirm that students learn more when their parents are involved in their education. Thus, the greater the involvement of parents, the larger the student's academic gain (Mueller, 1987). Mueller further supports this research by saying that parents can complement the schools' efforts when they understand and share the school's goals. He concludes that teachers achieve better results when they understand the children they teach, their home environments, and the expectations their parents hold for them.

Several teachers have offered positive statements that indicate that the job of teaching cannot be accomplished without programs that involve parents. One teacher says she relies on parent help, but she realized long ago that only with parents help could her job be performed adequately (Epstein & Becker, 1982). Other teachers believe both parents and students can benefit from parental involvement.

There is much positive research supporting parental, student, and teacher involvement to help improve academic achievement, but there are many debates on what and how the parent should be involved. Researchers, practitioners, and policymakers consistently rank parental involvement high among the components of effective schools. Two decades of research on family environments show that children have an advantage in school when their parents continuously support and encourage their school activities.

Not all families, however, know how to become involved in school-related activities, and not all schools actively encourage and direct parental involvement. There is very little agreement on the most useful types of parental involvement that will help to improve academic achievement.

This research will highlight five basic ways parents may be involved. Comprehensive programs should include all of them (Epstein, 1987).

Basic Obligations of Parents

The most basic involvement of parents is providing for their children's food, clothing, shelter, health, safety, and general well-being. In their child-rearing activities, parents teach their infants and toddlers basic cognitive and social skills, more or less preparing their children for

school and continuing to guide, advise, and teach them through childhood and adolescence. Most parents meet their children's basic needs independently, but when these obligations are not met administrators and teachers may be obliged to assist the family or to alert community social service agencies about the family's need for help.

Because parents vary in their experience and skills, some schools take active roles in helping parents understand and build positive home conditions for their children's school learning and behavior.

Basic Obligations of Schools

A second type of parental involvement common to all schools is communication from the school to the home. The school has an obligation to inform parents about school programs and their children's progress, and parents are expected to act on the information they receive. All schools send home memos, report cards, calendars of the school year, and notices of special events. Some districts also offer taped messages on various topics that parents can access by phone to boost their awareness and understanding of school programs and policies.

Parents of all grade levels need clear information on the objectives and specific skills for each subject each year, on course requirements and consequences of course selections, on standards for promotion and graduation, on grading practices and test results, on school budget allocations and policy decisions, and on other important district, school, and classroom matters.

An ideal school's communication can be designed so that useful messages, ideas, and questions go from school to home and from home to school. Cooperation is essential for this flow of information.

Parental Involvement at School

A third familiar type of parental involvement brings parents to the school building, usually in connection with several of these activities. Parent volunteers may assist teachers and students in the classroom, on class trips or at class parties; teach mini-courses; participate in career awareness programs; demonstrate hobbies and talents; provide after-school remediation or enrichment

programs, homework clinics, or hot line; help administrators and teachers in the cafeteria, library, computer lab or other areas that require adult supervision.

In most schools, these activities are conducted by relatively few parents who are available during the day. According to the survey (Epstein, 1987), over 70% of the parents studied had never been involved in any such activities, mainly because 60% of the mothers worked full or part-time. Only about 4% - one or two parents per classroom - were highly active as school volunteers for 25 days or more per year.

According to Epstein (1987), the benefits of parental involvement are many and go beyond valuable assistance in classroom management, instruction, and nonteaching duties. Having parents active at school encourages teachers to request other parents to conduct learning activities with their children at home. The research also indicates that, while most parents believe involvement at school is important, relatively few participate.

Parental Involvement in Learning Activities at Home

The fourth major type of parental involvement is assistance with learning activities at home, which may occur with or without specific advice and directions from teachers. The learning activities may be designed to build general skills and behaviors, or specific learning skills that are directly coordinated with the children's classwork.

Parents may be asked to assist the child to build skills that are useful in school, but that do not duplicate the teacher's efforts. For example, the teacher may request parents' assistance to help students learn how to manage study habits and school routines and to develop problem-solving and critical thinking. The parent also may be asked to reinforce learning and discipline on a reward or punishment schedule set up in cooperation with the teacher.

Specific Skills

Parents may be asked to assist their children to review, complete, or extend skills that the student is working on with the teacher in class. This may include the specific sequences of skills needed at each grade level in math, reading, language arts, social studies, science, art, music, or

other subjects. Teachers who frequently use home learning activities are usually able to involve parents of all educational backgrounds, even though other teachers claim that parents with less than a high school education lack the ability or willingness to help their children with learning activities.

Epstein's (1987) research identifies 16 techniques that can be used by teachers to involve parents in learning activities at home with their children in reading, playing, learning games, and tutoring (they can also observe teachers in order to learn how to teach at home). They are:

1. Ask parents to read to their children regularly or to listen to the children read aloud.
2. Loan books, workbooks, and other materials to parents.
3. Ask parents to take their children to the library.
4. Ask parents to get their children to talk about what they did that day in class.
5. Give an assignment that requires the children to ask their parents questions.
6. Ask parents to watch a specific television program with their children and to discuss the show afterward.
7. Suggest ways for parents to include their children in any of their own educationally enriching activities.
8. Send home suggestions for games or group activities related to the children's schoolwork that can be played by either parent and child or by child and siblings.
9. Suggest how parents might use home materials and activities to stimulate their children's interest in reading, math, and other subjects.
10. Establish a formal agreement whereby parents supervise and assist children in completing homework tasks.
11. Establish a formal agreement whereby parents provide rewards and/or penalties based on the children's school performance or behavior.
12. Ask parents to come to observe the classroom (not to "help") for part of a day.
13. Explain to parents certain techniques for teaching, for making learning materials, or for planning lessons.
14. Give a questionnaire to parents so that they can evaluate their children's progress or provide some other form of feedback.
15. Ask parents to sign homework to ensure its completion.
16. Ask parents to provide spelling practice, math drills, and practice activities, or to help with workbook assignments.

Assumptions and Research Questions

It was assumed that the responses of parents and teachers to the *Parent-Teacher Attitude Questionnaire* (*PTAQ*; Twillie, Petry, & Kenney, 1992) adequately reflect their attitudes concerning parental involvement in the educational process. The term "parent" refers to the legal guardian of a student, regardless of actual relation to student.

For the purposes of this study, an inner-city school is defined as a school located in an inner city area designated by the city. It is where the inner-city child attends not only for education but for the nurturing and care he may not receive at home. An inner-city school must have strong disciplinarians to deal with some of the problems of the city child, as well as have patience and understanding (Classroom Teachers, 1991).

An inner-city child is defined as a child with the same needs and desires as other children. He might or is usually the victim of low economic standards, might be the product of any one or all of the following: single-parent home, over-crowded home, lack of education or illiteracy in the home, latch-key, unsanitary living conditions, drugs and alcohols, teen-age pregnancy, etc. All of which can have an negative effect on a child and as a result may cause low academic achievement (Classroom Teachers, 1991).

The research questions posed were the following:

(1) Is there a difference between parents' attitudes and teachers' attitudes regarding parental involvement in elementary education?

(2) Did parents' attitudes change following the treatment?

(3) Is there a relationship between parents' attitudes and student gender?

(4) Were there any gains/losses in achievement after the treatment?

(5) Is there a relationship between student achievement and student gender?

(6) Is there a relationship between parents' attitudes and student achievement?

METHOD

Participants

The group of teachers was obtained by using the entire faculty from two elementary schools; one had 48 teachers; the other had 23 teachers. Both schools serve an inner-city populace. Teachers are hired from a central personnel office. Placement is determined by administration of each particular school. Parents, teachers, and local administrators have little or no input into the selection process. This study also used intact groups of teachers with randomness being determined in the selection of two schools. The two groups of teachers were not compared on a single variable, but an item analysis was done on each item of the attitudinal questionnaire.

The group of parents was obtained from one elementary school setting. This group was composed of 49 parents, 32 of whom responded to the post-questionnaire and had children who were taught English and math in the treatment classroom.

Teacher Characteristics

Of the 71 teachers who responded to the questionnaires, the vast majority were female (see ***Table 2***). More than one-half of the teachers were African-American; all others were Caucasian. No other ethnic groups were represented in the sample of teachers. The mean number of years of total teaching experience was 12.9 (range, 1 to 33 years), while inner-city experience averaged 9.8 (range, 1 to 31 years). Years teaching in inner-city settings reflected 75.7% of the total years of experience for teachers. Most of the teachers surveyed received training at a public college or university. Nearly two-thirds of the teachers were trained in elementary education, with training in secondary and pre-school education representing 17.6% and 16.2%, respectively The majority of teachers had master's degrees, almost one-third had bachelor's degrees, and three teachers had specialist degrees as their highest credential.

Table 2: **Teacher Characteristics**

GENDER: (N = 71)	Female	95.8%
	Male	4.2%
ETHNICITY: (N = 71)	African-American	57.7%
	Caucasian	42.3%
EXPERIENCE: (N = 69)	Total (mean)	12.9 years
	Inner-City (mean)	9.8 years (75.7% of total)
COLLEGE: (N = 64)	Public	65.0%
	Private	35.0%
TRAINING: (N = 51)	Elementary	66.2%
	Secondary	17.6%
	Pre-School	16.2%
HIGHEST DEGREE EARNED: (N = 70)	Master's	64.3%
	Bachelor's	31.4%
	Specialist	4.3%

Parent Characteristics

Forty-eight of the 49 parents who responded to the questionnaire completed the demographic items. Over 77% of the respondents were female (see ***Table 3***). Most of these were mothers of the students, but grandmothers and aunts also were represented. Fathers comprised more than 12% of the parents. The number of children the parents had in school averaged 2.7 (range, 1 to 13). Thirty-two of the 49 parents completed *PTAQ-P* posttests.

Student Characteristics

All of the students (N = 32) who participated in this study were in the fourth grade at an inner-city elementary school in Memphis, Tennessee. Females represented 56.3% (N = 18) of the students and males represented 43.7% (N = 14). Only those students whose parents completed pretest and posttest *PTAQ-Ps* were included in this study.

Table 3: **Parent Characteristics**

RELATION TO STUDENT: (N = 48)	Mother	77.1%
	Father	12.5%
	Grandmother	6.3%
	Aunt	4.2%
CHILDREN: (N = 48)	Total in school	
	- mean	2.7
	- range	1-13

Materials

Parents were given a variety of materials as part of the overall treatment. All students were given a school handbook which they were instructed to show the parents. The handbook included a calender of events and activities during the school term, a statement of the purpose and philosophy of the school, and goals and objectives for the student. Each parent was supplied with a syllabus. The syllabus outlined course requirements, readings, and mastery levels for English and math. A list of supplies the student needed for the term was also sent to parents.

A copy of disciplinary rules and school regulations was sent to each parent. This form was signed by parents and sent back to the school.

A consent form was sent to parents. This also had to be signed and returned in order for parents to participate in the study.

The *PTAQ* was developed by researchers from the Memphis City Schools and the Bureau of Educational Research Services, College of Education, Memphis State University, as part of a larger study of parents' attitudes toward classroom teachers. The parent version (see ***Appendix A***) has 21 items that are scored on a Likert scale from "strongly agree" to "strongly disagree." Items for the instrument were gleaned from the literature, which described attitudes of parents,

students and teachers in inner-city schools toward the classroom teacher in regard to improving academic achievement. The "face validity" of the instrument is considered adequate based on the judgments of inner-city parents, principals, instructional supervisors, teachers, as well as literature sources. Reliability of the questionnaire has yet to be conclusively determined.

Categorization of response along a four-part continuum of "strongly disagree," "disagree," "agree," and "strongly agree" forces the respondent to choose one category. The instrument has no room for indecision as it has no middle point. The responses are converted to values ranging from 1 to 4 (1 = "strongly disagree," 2 = "strongly agree").

Analysis of the original questionnaire (Twillie, Petry, Kenney, & Payne, 1991) revealed that parents and teachers represent two distinctly different populations with regard to variables associated with the instrument. Consequently, two separate versions were constructed, with 18 items common to both versions. Most of the results presented in this manuscript deal with these 18 items.

Combined data from parents and teachers (N = 118) who participated in this research were factor analyzed using equamax rotation. Four factors were extracted (see ***Table 1***). These four factors account for 59% of the variance associated with the 18 variables. Factor 1 appears to involve *parent performance* (*PPF*) related to achievement and accounts for most of the variance. Factor 2 seems to encompass *teacher performance* (*TPF*). Three of the four items loading strongly on Factor seem to be related to parent, student, and teacher *interpersonal interactions* (*INF*). Factor 4 appears to represents *school requirements* (*SRF*) which address mastery of academic subjects. See ***Appendix B*** for details regarding these four factors and their component items.

Academic measures administered to students consisted of tests in English (Haley-James & Stewig, 1990), mathematics (Wells, 1987), and reading (Pearson, Johnson, Clymar, Indrisano, Venzky, Boumann, Hiebert, & Toth, 1989).

Table 1: **Equamax Factor Structure and Loadings of the *PTAQ* for 18 Items Common to Parent and Teacher Versions**

Parent Item #	Factor 1 (*PPF*)	Factor 2 (*TPF*)	Factor 3 (*INF*)	Factor 4 (*SRF*)
12	.79			
15	.77			
18	.70			
16	.62			
17	.59			
9		.81		
11		.71		
10		.67		
19		.59		
3			.71	
1			.67	
21			.54	
5			.43	
4				.70
13				.61
7				.57
20				.46
8				.41
Percent of Variance:	39.1	7.2	6.8	5.9

Note. *PPF* = parent performance factor; *TPF* = teacher performance factor; *INF* = interpersonal interaction factor; *SRF* = school requirements factor; See ***Appendix B*** for item stems; N = 118.

Design and Procedures

The present study employs a quasi-experimental design. No control group was available, but there are plans for future investigations to include a control classroom.

Discussions took place between teachers and parents during conferences, open houses, and over the telephone. These discussions outlined good study habits at home, student attitudes about school, and how to use the school handbook and syllabus during the school term. Parents were

involved in special workshops on Saturdays which attempted to impart the knowledge necessary for parents to facilitate students' academic performance. Parents were shown English, mathematics, and reading pretest scores and students' strengths and weaknesses were discussed. Each parent was given a syllabus which outlined the course requirements and mastery levels for the three designated academic subjects.

Written deficiency or progress notices were sent home periodically during the school term. Such notices informed the parents of work which fell below or surpassed 80% mastery levels.

Permission to administer the instrument was obtained from the principals of the two inner-city schools involved in the study. The *PTAQ-Teacher Version* (*PTAQ-T*) was administered to teachers during faculty meetings and staff development workshops, and to parents during special conferences and an open house.

It was stressed that anonymity and secrecy of response would be maintained. Teachers were not to sign their names or put any identifying marks on the questionnaires. Questionnaires for parents were coded so that they could be matched with students' academic scores.

Data were collected on teachers, parents, and students. Teachers completed one questionnaire. The teachers who completed questionnaires and provided demographic data did not necessarily instruct the students involved in the study. The teachers were the entire complement of faculty at two inner-city elementary schools in Memphis, ranging from music teachers to librarians.

Parents completed pretests, received training, and then completed posttests. The interval between pretests and posttests was approximately three months. Only those parents who had students involved in the study were asked to complete questionnaires. Students were administered academic pretests and posttests at approximately the same intervals as the parents.

RESULTS

Analysis of the data yielded independent *t*-tests comparisons between parent and teacher responses; between parents of male students and parents of female students; and between male and female students on test scores. Dependent *t*-tests comparisons were performed for parents' pretest and posttest *PTAQ-Ps* and students' academic achievement pretest and posttest scores. Correlation coefficients were calculated for all item, factor, and student grade comparisons.

Parent and Teacher Attitudes

As expected, parents and teachers differed significantly on all of the 18 items common to both questionnaires. Independent *t*-test findings supported the decision to construct separate instruments after analysis of the original questionnaire items.

Parent Attitude Changes

Dependent *t*-tests for parents' pretest and posttest *PTAQ-Ps* revealed that the instrument is remarkably stable. Only one item was significantly different ($t_{(30)} = -2.27$, $p = .031$) on the second administration. Item 12 (see ***Appendix A***), which deals with a parent's ability to communicate with a student about academic expectations showed that parents disagreed more with this item on the posttest. This suggests they feel less able to communicate with their children about school-related issues.

Parent Attitude and Student Gender

No significant differences were found between parents of male students and parents of female students for *PTAQ-P* pretests, posttests, or changes across administrations.

Educational Gains

Students' academic test scores were analyzed using dependent *t*-tests. The results are detailed in ***Table 4***. Students showed significant improvement in all subjects on the posttests.

Educational Measures and Student Gender

No significant differences were found between male and female students on pretests, posttests, or score changes across English, mathematics, or reading test administrations.

Parent Attitudes and Educational Measures

The relationship between parents' attitudes and students' achievement was investigated using Pearson product-moment correlation coefficients. Factor 2 (*TPF*) was significantly related to two academic tests: the English pretest ($r_{(30)} = .42, p \leq .05$), and the mathematics posttest ($r_{(30)} = .38, p \leq .05$). While these coefficients are moderate to low in strength, they are nonetheless significant. Factor 4 (*SRF*) was found to be significantly related to the reading pretest ($r_{(16)} = .48, p \leq .05$).

Changes in parents' responses to the *PTAQ-P* were positively correlated with three of the students' academic gain scores. Gains in English scores were significantly related to *PPF* ($r_{(30)} = .36, p \leq .05$) and *TPF* ($r_{(30)} = .43, p \leq .05$). Mathematics gains were significantly associated with *SRF* ($r_{(30)} = .35, p \leq .05$). Reading gains were not significantly related to any of the four factors.

Table 4: **Students' Mean Pretest and Posttest Scores in Three Academic Subjects**

Subject	N	Pretest	Posttest	Gain	*t*
English	32	53.7	93.1	39.3	-14.6 *
Mathematics	32	57.8	92.9	35.1	-15.4 *
Reading	18	54.9	89.2	34.3	-7.6 *

Note. * = Significant difference ($p \leq .05$).

DISCUSSION

This study investigated the differences in attitudes about elementary education between parents and teachers, the effects of a training program on parents' attitudes and students' grades, the effect of gender on parents' attitudes and students' grades, and the relationship between parents' attitudes and students' grades.

The results suggest that teachers and parents differ significantly in their attitudes about educational issues. Parents' attitudes were not significantly different following the training program than they were prior to the intervention. Student gender was not significantly related to parents' attitudes or students' grades. Students performed significantly better in English, mathematics, and reading on posttests immediately following the intervention.

The implications this research are varied. First, parents and teachers appear to represent significantly different populations with regard to educational attitudes.

Second, parents agreed significantly less with Item 12 on the parent version of the *PTAQ*. This item involves the extent to which parents feel they are able to communicate effectively about their expectations for their children in school. This seem to be a curious finding at face value. Yet, by the time they completed the posttests, they may have begun to realize just how much they did not know about communicating their expectations to their children. In light of this, perhaps this finding is more of a positive sign than it appears on the surface.

The third implication relates to students' improved academic scores. The consistency and significance with which students improved their academic scores was most impressive. While no single determinant can be isolated as a potential facilitator of such dramatic improvement, the increased attention they presumably received from their parents and teachers no doubt contributed to their performance.

Gender does not seem to play a significant role in the relationships we have investigated. Neither parents' attitudes nor students' grades were significantly different when gender was controlled.

These results provide further support for the assumption that parental involvement is important for academic achievement. Parents' involvement in the educational process may indeed assist inner-city students in their quest for educational excellence. Continued workshop training for parents which focuses on the facilitation of academic achievement is recommended.

Subsequent investigations should include provisions for a control group to more adequately assess the role of the training program on attitude changes and educational gains. It was noted earlier that the *PTAQ-P* was stable across administrations, yet little is known about its sensitivity. A true experimental design would provide data regarding sensitivity which, in turn, would greatly enhance the interpretability of the instrument.

REFERENCES

Classroom Teachers. (1991). Definition of "inner-city school": Open-ended discussion. Memphis City Schools, Memphis, TN.

Epstein, J. L. (1987). What principals should know about parent involvement. *Principal, 66*, 6-9.

Epstein, J. L. & Becker, H. I. (1982). Teachers' reported practices of parent involvement: Problems and possibilities. *Elementary School Journal, 83*, 104, 108.

Epstein, J. L. & Becker, H. I. (1980, 1981, 1987). *Hopkins' surveys of schools and family connections*. Center for Research on Elementary and Middle Schools, Johns Hopkins University, Baltimore, MD, 81-89.

Epstein, J. L. (1986). Parents' reactions to teacher practices of parent involvement. *Elementary School Journal, 87*, 277-294.

Haley-James, S., & Stewig, W. (1990). *English*, Level 4. Dallas, TX: Houghton-Mifflin.

Mueller, V. D. (1987). The parents' perspective. *Phi Delta Kappan, 6*, 761.

Pearson, P. D., Johnson, D. D., Clymar, T., Indrisano, R., Venzky, R. L., Boumann, J. F., Hiebert, E., & Toth, M. D. (1989). *Silver secrets*, Level 10. Atlanta, GA: Silver, Burdett, & Ginn.

Twillie, L. D.. (1988). *Teacher Burnout in Diverse Elementary Schools*. Unpublished doctoral dissertation. University of Sarasota, Sarasota, FL.

Twillie, L. D., Petry, J. R., & Kenney, G. E. (1992). *The parent-teacher attitude questionnaire*. Unpublished manuscript, Bureau of Educational Research Services, Memphis State University, Memphis, TN.

Twillie, L. D., Petry, J. R., Kenney, G. E., & Payne, R. (1991, November). *Attitudes of parents and teachers toward improving academic achievement in inner-city schools*. Paper presented at the 20th annual meeting of the Mid-South Educational Research Association, Lexington, KY. (ERIC Document Reproduction Service No. ED 340 802).

Wells, A. (1987). *Mathematics today*, 2nd Edition. Orlando, FL: Harcourt, Brace, & Jovanovich.

Appendix A

Parent-Teacher Attitude Questionnaire-Parent Version (PTAQ-P)

IMPROVING THE ACADEMIC ACHIEVEMENT OF INNER-CITY STUDENTS

The Parent-Teacher Attitude Questionnaire-Parent Version (PTAQ-P)

The 21 items below assess the attitudes of parents about the relationships among parents, teachers, and students in inner-city schools and how these relationships can help to improve the academic achievement of the inner-city child. Each item has four (4) possible responses:

SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree.

To the right of each item, please check the blank that best represents your response to the statement.

	SA	A	D	SD
1. Most parents feel that teachers use various modes of communication, oral and written, to convey messages to them.				
2. Most students get along well together.				
3. Most parents expect their children to maintain a minimum grade average of "C" or above in Reading and Math, and in one additional academic subject, for promotion to another grade level.				
4. Most teachers believe that only through parental help and involvement can a teacher's job be performed adequately.				
5. Most students work hard because the teacher expects them to work hard.				
6. Most parents feel good about a teacher's high expectations and evaluations of their children.				

	SA	A	D	SD
7. Most parents expect their children to master both the minimum and above number of goals and objectives required by the school system.				
8. Most students accept the mastery levels required by the school system and try to reach them.				
9. I am generally satisfied with teachers' work with their children.				
10. My children like and respect their teachers.				
11. I generally have a positive relationship with teachers.				
12. Most parents are able to tell their children what they expect of them in school.				
13. Most parents expect their children to master all required tests in Reading and Math at the 80% mastery level.				
14. Most students feel positive about their teachers' evaluations of them.				
15. Most parents have a positive relationship with their children.				
16. Most parents and students welcome home visits to better understand what the teacher expects of them during the school year.				
17. Most students react and behave in a manner that demonstrates love and high expectations from their parents.				

	SA	A	D	SD
18. Most parents care about and love their children.				
19. Most parents feel that teachers communicate clearly with them.				
20. Most teachers expect all students to maintain a minimum grade average of "C" or above in Reading and Math, and in one additional academic subject, for promotion to another grade level.				
21. Most parents would like for teachers to use home visits to lay the groundwork for communication that will occur during the year.				

Appendix B

Parent-Teacher Attitude Questionnaire (PTAQ)

Factor Structure and Associated Items

Parent-Teacher Attitude Questionnaire (PTAQ)

Factor 1
Parent Performance Factor (PPF)
Accounts for 39.1% of variance.

Parent Item #	Item Stem	Loading
12.	Most parents are able to tell their children what they expect of them in school.	.79
15.	Most parents have a positive relationship with their children.	.77
18.	Most parents care about and love their children.	.70
16.	Most parents and students welcome home visits to better understand what the teacher expects of them during the school year.	.62
17.	Most students react and behave in a manner that demonstrates love and high expectations from their parents.	.59

Factor 2
Teacher Performance Factor (TPF)
Accounts for 7.2% of variance.

Parent Item #	Item Stem	Loading
9.	I am generally satisfied with teachers' work with my children.	.81
11.	I generally have a positive relationship with teachers.	.71
10.	My children like and respect their teachers.	.67
19.	Most parents feel that teachers communicate clearly with them.	.59

Factor 3
Interpersonal Interaction Factor (INF)
Accounts for 6.8% of variance.

Parent Item #	Item Stem	Loading
3.	Most parent expect their children to maintain a minimum grade average of "C" or above in Reading and Math, and in one additional subject, for promotion to another grade level.	.71
1.	Most parents feel that teachers use various modes of communication, oral and written, to convey messages to them.	.67
21.	Most parents would like for teachers to use home visits to lay the groundwork for communication that will occur during the school year.	.54
5.	Most students work hard because the teacher expects them to work hard.	.43

Factor 4
School Requirements Factor (SRF)
Accounts for 5.9% of variance.

Parent Item #	Item Stem	Loading
4.	Most teachers believe that only through parental help and involvement can a teacher's job be performed adequately.	.70
13.	Most parents expect their children to master all required tests in Reading and Math at the 80% mastery level.	.61
7.	Most parents expect their children to master both the minimum and above number of goals and objectives required by the school system.	.57
20.	Most teachers expect all students to maintain a minimum grade average of "C" or above in Reading and Math, and in one additional academic subject, for promotion to another grade level.	.46
8.	Most students accept the mastery levels required by the school system and try to reach them.	.41